# Geographic Information System Format ArcInfo (GRID)

Identification_Information:
  Citation:
    Citation_Information:
      Originator: United States Geological Survey (USGS), Coastal and Marine Geology (CMG), Chief Scientist (James V. Gardner)
      Publication_Date: 2001
      Title: Bathymetry Mapping of SteamBoat Lumps, West Florida Shelf, Gulf of Mexico
      Geospatial_Data_Presentation_Form: ArcInfo GRID
  Description:
    Abstract:
      ArcInfo GRID format data generated from the 2001 multibeam sonar survey of the West Florida Shelf, Gulf of Mexico. The data include high-resolution bathymetry and calibrated acoustic backscatter.
    Purpose:
      These data are intended for science researchers, students, policy makers, and the general public. The data can be used with geographic information systems (GIS) or other software to display bathymetry and backscatter data of the West Florida Shelf, Gulf of Mexico.
    Supplemental_Information:
      Information for USGS Coastal and Marine Geology related activities are online at http://walrus.wr.usgs.gov/infobank/m/m201gm/html/m-2-01-gm.meta.html
  Time_Period_of_Content:
    Time_Period_Information:
      Range_of_Dates/Times:
        Beginning_Date: 20010903
        Ending_Date: 20011012
    Currentness_Reference: ground condition
  Status:
    Progress: Complete
    Maintenance_and_Update_Frequency: As needed
  Spatial_Domain:
    Bounding_Coordinates:
      West_Bounding_Coordinate: -84.81666
      East_Bounding_Coordinate: -84.61311
      North_Bounding_Coordinate: 28.25034
      South_Bounding_Coordinate: 28.04288
  Keywords:
    Theme:
      Theme_Keyword_Thesaurus: CoRIS Discovery Keyword Thesaurus Version 1.0
      Theme_Keyword: Geographic Information > Raster
    Theme:
      Theme_Keyword_Thesaurus: CoRIS Theme Keyword Thesaurus Version 1.0
      Theme_Keyword: Mapping
      Theme_Keyword: EARTH SCIENCE > Biosphere > Zoology > Corals > Reef monitoring and assessment
    Theme:
      Theme_Keyword_Thesaurus: None
      Theme_Keyword: Marine Geology
      Theme_Keyword: Multibeam
      Theme_Keyword: Bathymetry
      Theme_Keyword: Backscatter
      Theme_Keyword: Water Depth
      Theme_Keyword: Ocean Floor Topography
      Theme_Keyword: Deep-water Reefs
    Place:
      Place_Keyword_Thesaurus: CoRIS Place Keyword Thesaurus Version 1.0

Place_Keyword: COUNTRY/TERRITORY > United States of America > Florida > Steamboat Lumps > (28N084W0001)
Place_Keyword: OCEAN BASIN > Atlantic Ocean > Gulf of Mexico > West Florida Shelf > Steamboat Lumps > (28N084W0001)
Place:
Place_Keyword_Thesaurus: None
Place_Keyword: West Florida Shelf
Place_Keyword: FLorida
Place_Keyword: Gulf of Mexico
Place_Keyword: USA
Access_Constraints: None
Use_Constraints: Please recognize the National Oceanic and Atmospheric Administration (NOAA) and the U.S. Geological Survey (USGS) as the source of this information. NOAA and USGS-authored or produced data and information are in the public domain.
Point_of_Contact:
Contact_Information:
Contact_Person_Primary:
Contact_Person: James V. Gardner
Contact_Organization: United States Geological Survey (USGS) Coastal and Marine Geology (CMG)
Contact_Position: Geologist
Contact_Address:
Address_Type: mailing and physical address
Address: USGS, MailStop 999, 345 Middlefield Road
City: Menlo Park
State_or_Province: CA
Postal_Code: 94025-3561
Country: USA
Contact_Voice_Telephone: (650) 329-5469
Contact_Facsimile_Telephone: (650) 329-5411
Contact_Electronic_Mail_Address: jvgardner@usgs.gov
Data_Quality_Information:
Attribute_Accuracy:
Attribute_Accuracy_Report: Not applicable for raster data.
Logical_Consistency_Report: Unspecified
Completeness_Report: Complete
Positional_Accuracy:
Horizontal_Positional_Accuracy:
Horizontal_Positional_Accuracy_Report: 0.5 meters
Vertical_Positional_Accuracy:
Vertical_Positional_Accuracy_Report: 0.05 percent of the water depth
Lineage:
Process_Step:
Process_Description:
The bathymetry and backscatter data were collected along a continuous swath perpendicular to the direction of the ship using a Kongsberg Simrad EM1002 multibeam sonar system. The data are cleaned of bad navigation and depth readings. The depth readings are gridded into a common grid. The gridded data are converted to ArcInfo GRID format using ArcInfo's ASCIIGRID command.
Process_Date: 20011012
Process_Contact:
Contact_Information:
Contact_Person_Primary:
Contact_Person: James V. Gardner
Contact_Organization: United States Geological Survey (USGS) Coastal and Marine Geology (CMG)
Contact_Position: Geologist
Contact_Address:
Address_Type: mailing and physical address

Address: USGS, MailStop 999, 345 Middlefield Road
City: Menlo Park
State_or_Province: CA
Postal_Code: 94025-3561
Country: USA
Contact_Voice_Telephone: (650) 329-5469
Contact_Facsimile_Telephone: (650) 329-5411
Contact_Electronic_Mail_Address: jvgardner@usgs.gov
Spatial_Data_Organization_Information:
Direct_Spatial_Reference_Method: Raster
Raster_Object_Information:
Raster_Object_Type: Grid Cell
Spatial_Reference_Information:
Horizontal_Coordinate_System_Definition:
Planar:
Grid_Coordinate_System:
Grid_Coordinate_System_Name: Universal Transverse Mercator
Universal_Transverse_Mercator_(UTM):
UTM_Zone_Number: 16
Transverse_Mercator:
Scale_Factor_at_Central_Meridain: 0.9996
Longitude_of_Central_Meridian: -87.00000
Latitude_of_Projection_Origin: 0.00000
False_Easting: 0.00
False_Northing: 0.00
Planar_Coordinate_Information:
Planar_Coordinate_Encoding_Method: Coordinate Pair
Coordinate_Representation:
Abscissa_Resolution: 8.0
Ordinate_Resolution: 8.0
Planar_Distance_Units: Meters
Geodetic_Model:
Horizontal_Datum_Name: WGS84
Ellipsoid_Name: WGS84
Semi-major_Axis: 6378137.0
Denominator_of_Flattening_Ratio: 0.003352811
Entity_and_Attribute_Information:
Overview_Description:
Entity_and_Attribute_Overview:

NBATHYG is an ArcInfo GRID with the following attributes: Cell Size = 8.000 Data Type: Floating Point Number of Rows = 5643 Number of Columns = 6740

BOUNDARY Xmin = 527624.036 Xmax = 581544.036 Ymin = 3281094.779 Ymax = 3326238.779

STATISTICS Minimum Value = -129.937 Maximum Value = -46.920 Mean = -90.947 Standard Deviation = 19.106

NMOSG is an ArcInfo GRID with the following attributes: Cell Size = 8.000 Data Type: Floating Point Number of Rows = 5641 Number of Columns = 6736

BOUNDARY Xmin = 527640.055 Xmax = 581528.055 Ymin = 3281094.860 Ymax = 3326222.860

STATISTICS Minimum Value 115.000 Maximum Value = 243.556 Mean = 192.089 Standard Deviation = 7.428

CBATHYG is an ArcInfo GRID with the following attributes: Cell Size = 8.000 Data Type: Floating Point Number of Rows = 7091 Number of Columns = 8142

BOUNDARY Xmin = 556226.086 Xmax = 621362.086 Ymin = 3225095.066 Ymax = 3281823.066

STATISTICS Minimum Value -188.700 Maximum Value = -50.481 Mean = -101.783 Standard Deviation = 31.205

CMOSG is an ArcInfo GRID with the following attributes: Cell Size = 8.000 Data Type: Floating Point Number of Rows = 7091 Number of Columns = 8141

BOUNDARY Xmin = 556234.118 Xmax = 621362.118 Ymin = 3225095.105 Ymax = 3281823.105

STATISTICS Minimum Value 151.000 Maximum Value = 253.959 Mean = 191.949 Standard Deviation = 8.260

SBATHYG is an ArcInfo GRID with the following attributes: Cell Size = 8.000 Data Type: Floating Point Number of Rows = 5808 Number of Columns = 8270

BOUNDARY Xmin = 592166.910 Xmax = 658326.910 Ymin = 3193583.705 Ymax = 3240047.705

STATISTICS Minimum Value -188.390 Maximum Value = -48.146 Mean = -123.580 Standard Deviation = 32.989

SMOSG is an ArcInfo GRID with the following attributes: Cell Size = 8.000 Data Type: Floating Point Number of Rows = 5410 Number of Columns = 8263

BOUNDARY Xmin = 592223.251 Xmax = 658327.251 Ymin = 3196771.514 Ymax = 3240051.514

STATISTICS Minimum Value 151.000 Maximum Value = 250.000 Mean = 190.437 Standard Deviation = 8.699

SBBATHYG is an ArcInfo GRID with the following attributes: Cell Size = 4.000 Data Type: Floating Point Number of Rows = 5654 Number of Columns = 5107

BOUNDARY Xmin = 714201.893 Xmax = 734629.893 Ymin = 3104250.423 Ymax = 3126866.423

STATISTICS Minimum Value -152.840 Maximum Value = -68.994 Mean = -89.114 Standard Deviation = 17.127

SBMOSG is an ArcInfo GRID with the following attributes: Cell Size = 4.000 Data Type:Floating Point Number of Rows = 5648 Number of Columns = 5105

BOUNDARY Xmin = 714201.893 Xmax = 734621.893 Ymin = 3104265.597 Ymax = 3126857.597

STATISTICS Minimum Value 161.000 Maximum Value = 251.000 Mean = 195.320 Standard Deviation = 4.010

Entity_and_Attribute_Detail_Citation: none
Distribution_Information:
Distributor:
Contact_Information:
Contact_Organization_Primary:
Contact_Organization: United States Geological Survey (USGS) Information Services
Contact_Address:
Address_Type: mailing and physical address

Address: Box 25286
City: Denver
State_or_Province: CO
Postal_Code: 80225
Country: USA
Contact_Voice_Telephone: (888)ASK-USGS
Resource_Description: M-01-GM data set
Distribution_Liability: These data not intended for navigational purposes.
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Standard_Order_Process:
Digital_Form:
Digital_Transfer_Information:
Format_Name: ArcInfo GRID
Format_Version_Number: 8.0.2
Digital_Transfer_Option:
Online_Option:
Computer_Contact_Information:
Network_Address:
Network_Resource_Name: http://geopubs.wr.usgs.gov/open-file/of02-005/site/data.html
Fees: None
Metadata_Reference_Information:
Metadata_Date: 20011030
Metadata_Contact:
Contact_Information:
Contact_Person_Primary:
Contact_Person: Pete Dartnell
Contact_Organization: United States Geological Survey (USGS) Coastal and Marine Geology (CMG)
Contact_Position: Physical Scientist
Contact_Address:
Address_Type: mailing and physical address
Address: USGS, MailStop 999, 345 Middlefield Road
City: Menlo Park
State_or_Province: CA
Postal_Code: 94025-3561
Country: USA
Contact_Voice_Telephone: (650) 329-5460
Contact_Facsimile_Telephone: (650) 329-5411
Contact_Electronic_Mail_Address: pdartnell@usgs.gov
Metadata_Standard_Name: Content Standard for Digital Geospatial Metadata ("CSDGM version 2")
Metadata_Standard_Version: FGDC-STD-001-1998
Metadata_Time_Convention: Universal Time